

87 01343
V 1031

**BUILDING A NEW HOME FOR THE
SAN FRANCISCO GIANTS:**

A Cost-Benefit Analysis of the Proposed China Basin Ballpark.

**Carol Wilkins
Deputy Mayor for Finance**

**Stephen J. Agostini
Assistant to the Mayor**

October 2, 1989

INSTITUTE OF GOVERNMENTAL
STUDIES LIBRARY

OCT 16 1989

UNIVERSITY OF CALIFORNIA



**ART AGNOS
Mayor
San Francisco, California**

The authors would like to thank Eugene Smolensky, Dean of the Graduate School of Public Policy, University of California, Berkeley; John Quigley, Professor of Economics and Public Policy, University of California, Berkeley; Dan Rubinfeld, Professor of Economics, University of California, Berkeley; and George Break, Professor of Economics, University of California, Berkeley, for their comments. The views and conclusions in this paper, however, are the responsibility of the authors.

Executive Summary

An analysis of the estimated costs and benefits of a new baseball facility at China Basin demonstrates that this investment would be advantageous for the City to pursue.

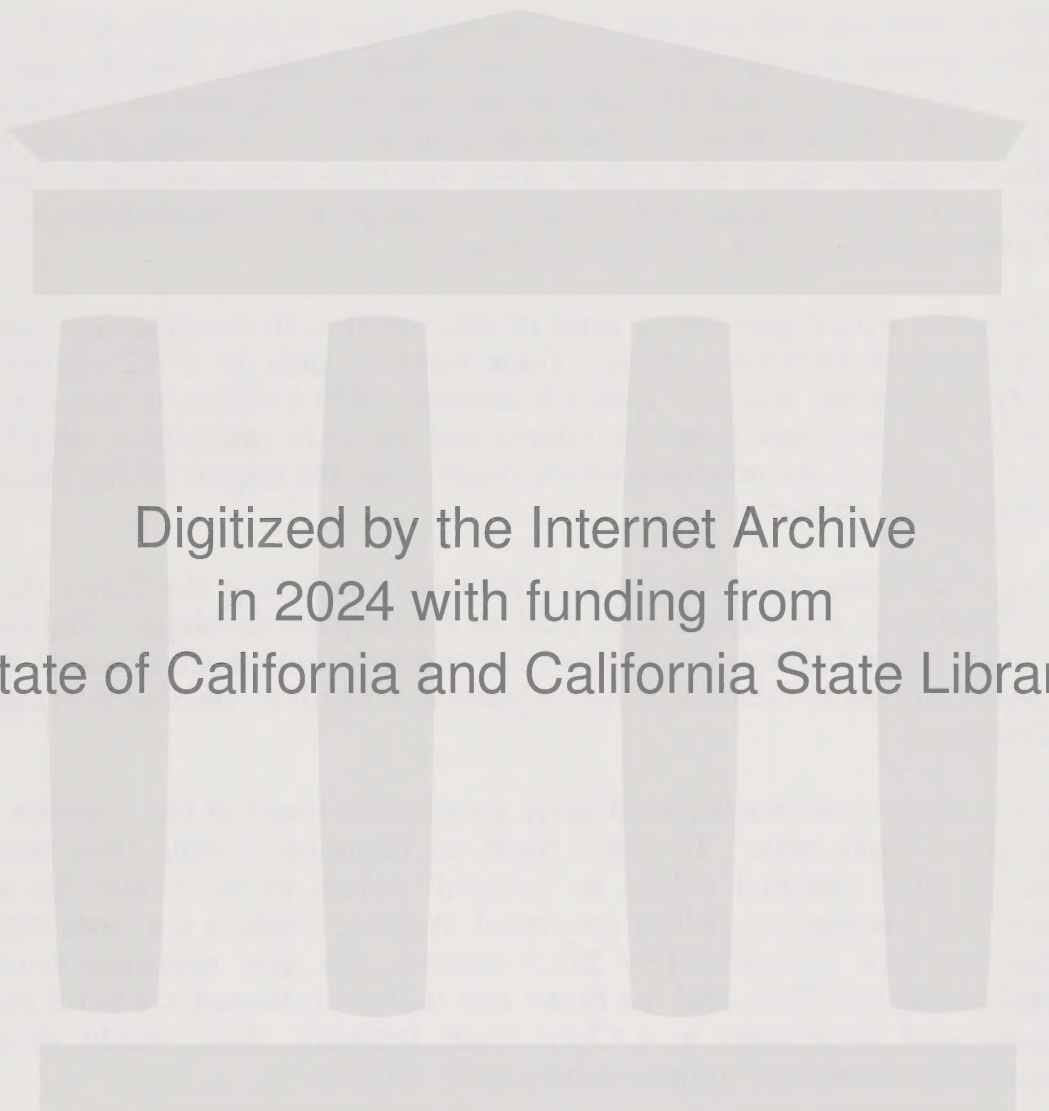
Under an expected case scenario, the City will incur costs totalling \$62.8 million for development and operation of the China Basin ballpark over the next forty years. These costs include \$8.1 million for land assembly and site preparation, which will be funded from the proceeds generated by developing city-owned surplus property, up to \$40 million from hotel tax revenues over a ten-year period, and approximately \$14.7 million in property tax allocations to other local governments during the forty year lease.

The ballpark would generate a total of \$823 million in revenues for the City during the same forty year period. These revenues include \$75.2 million from the City's 20 percent share of ballpark earnings, \$495.4 million in direct payroll and sales tax revenues from the Giants and ballpark operations, and \$252.4 million in indirect tax revenues which result from the impact of the Giants on San Francisco's economy.

A portion of these revenues are new revenues, including the City's share of ballpark earnings and payroll taxes paid by the ballpark developer. The balance represents current direct and indirect tax revenues which are retained by the City and expected to increase in future years as a result of keeping the Giants in San Francisco.

However, these costs are incurred fairly soon, while many of the benefits come many years from now. To place them on common footing they must be converted from nominal values to "present" values to determine the actual value of this investment. When converted to present values the costs incurred by the City are approximately \$26.5 million, the new revenues from the ballpark are \$6.4 million, and the direct and indirect revenues are \$51.5 million. The proposed investment in a China Basin ballpark, then, would yield net present value benefits of approximately \$31.5 million.

A best case scenario yields net present value benefits of \$141 million, while a worst case scenario yields net present benefits of \$575,000. These benefits do not take into account possible intangible benefits, such as national publicity, which are often associated with having a major league baseball franchise. Charts summarizing City costs and benefits under each scenario appear on pages 10 through 12.



Digitized by the Internet Archive
in 2024 with funding from
State of California and California State Library

<https://archive.org/details/C124899169>

I. Introduction: Keeping the Giants in San Francisco

On July 27, 1989 Mayor Art Agnos announced that he had signed Memoranda of Understanding with the San Francisco Giants and the Spectacor Management Group to keep the Giants in San Francisco. Under the terms of these Memoranda, the Giants will remain in San Francisco and play, for a minimum of thirty years, at a new facility to be built and operated by Spectacor. According to the Memoranda, the City's financial participation in the new facility will be limited to the following specific elements:

- Allowing Spectacor to use the City's authority to issue \$50 million in tax exempt bonds for the purpose of constructing a ballpark;
- Acquiring and assembling the land needed for the ballpark site;
- Preparing the site for construction;
- Contributing up to \$10 million for construction cost overruns;
- Contributing \$2 million a year during the first 10 years of the ballpark's operations, in exchange for 20 percent of the net cash flow generated by the facility over 40 years; and
- Lending Spectacor \$1 million a year during the first 10 years of the ballpark's operations, to be repaid, with interest, if the City offers to extend Spectacor's lease to operate the ballpark past year forty.

The City's limited financial participation will be funded in three ways:

- Land assembly, site preparation, and a portion of any construction cost overruns will be paid from income generated by developing the Kirkland bus yard, located in the Fisherman's Wharf area, and currently under the jurisdiction of the San Francisco Public Utilities Commission. An appraisal of the Kirkland property performed by the City's Real Estate Department in 1987 valued the Kirkland site at approximately \$18 million when zoned for residential and neighborhood-serving commercial uses.

- If construction cost overruns exceed the funds available from Kirkland, additional funds will be allocated from the General Fund portion of the Hotel Tax Fund in 1994.

- The \$3 million per year beginning in 1995 (\$2 million investment and \$1 million loan) will be paid from the unallocated share of the Hotel Tax Fund. In

In Fiscal Year 1994-1995 the Hotel Tax is projected to generate approximately \$93.8 million in revenues. Of this amount, \$25.7 million will be allocated to the General Fund by law and an additional \$5.5 million will be unallocated and will revert to the General Fund. The Hotel Tax is projected to grow by 6.4 percent a year from 1995 to 2004, growth which will provide sufficient resources for the existing services funded from the General Fund allocation, as well as the \$3 million needed for ballpark operations.

II. Costs of Developing the China Basin Ballpark

The costs which the City will incur to ensure the development of a new ballpark fall into five broad categories: land assembly, site preparation, construction costs, contribution and loan to ballpark operations, and property taxes to other governmental entities. The total nominal costs of this investment are expected to be \$62.8 million as detailed below.

a. Land Assembly.

The City will assemble the land needed for the ballpark without purchasing large parcels of privately owned land or transferring ownership of City property to a private developer.¹ The City will purchase one parcel and combine it with adjacent City owned property. The City will retain ownership of all of this land.

The ballpark will be built on land currently owned by the State of California's Department of Transportation (Caltrans) and the Port of San Francisco. Caltrans originally acquired its portion of the ballpark site with federal funds equal to 90 percent of the original purchase price. The City is negotiating a transfer of the Caltrans site to the Port and is confident that a waiver of the reimbursement usually required when land purchased with federal funds is subsequently sold is forthcoming from the federal government. It is estimated that the market value of Caltrans' 10 percent share of this parcel is approximately \$1.3 million, which the City would pay to the State in 1990 or 1991.²

The remaining portion of the ballpark site, Pier 46B, is owned by the Port of San Francisco, which has its maintenance facility at the site. The Rincon Point-

¹In contrast, the Illinois Sports Facilities Authority will spend approximately \$31 million to acquire land for the new Comiskey Park, while the Maryland Stadium Authority, according to Ed Cline, the Director, anticipates spending \$100 million to acquire 85 acres and demolish existing structures for its new ballpark.

² If a federal waiver could be obtained to use this land for another City purpose, then the other \$11.7 million of marketable value would also have to be counted as a cost to the ballpark. No other municipal use of this land has been contemplated, however. In effect, the federal government is providing the City with a subsidy worth \$11.7 million to construct the ballpark.

On 19th May 1966 the House of Commons passed the following resolution:

"That the Government should take steps to ensure that the following principles are observed in the development of the country's resources:

(a) that the land is used in the most efficient manner possible; and

(b) that the land is used in a manner which is consistent with the interests of the community as a whole."

The following principles are set out in the report of the Committee on the Development of the Country's Resources:

"The Committee has considered the principles set out in the resolution and has concluded that they should be observed in the development of the country's resources. The Committee has also concluded that the following principles should be observed in the development of the country's resources:

(a) that the land is used in the most efficient manner possible; and

(b) that the land is used in a manner which is consistent with the interests of the community as a whole."

The following principles are set out in the report of the Committee on the Development of the Country's Resources:

"The Committee has considered the principles set out in the resolution and has concluded that they should be observed in the development of the country's resources. The Committee has also concluded that the following principles should be observed in the development of the country's resources:

(a) that the land is used in the most efficient manner possible; and

(b) that the land is used in a manner which is consistent with the interests of the community as a whole."

The following principles are set out in the report of the Committee on the Development of the Country's Resources:

"The Committee has considered the principles set out in the resolution and has concluded that they should be observed in the development of the country's resources. The Committee has also concluded that the following principles should be observed in the development of the country's resources:

(a) that the land is used in the most efficient manner possible; and

(b) that the land is used in a manner which is consistent with the interests of the community as a whole."

The following principles are set out in the report of the Committee on the Development of the Country's Resources:

"The Committee has considered the principles set out in the resolution and has concluded that they should be observed in the development of the country's resources. The Committee has also concluded that the following principles should be observed in the development of the country's resources:

(a) that the land is used in the most efficient manner possible; and

(b) that the land is used in a manner which is consistent with the interests of the community as a whole."

The following principles are set out in the report of the Committee on the Development of the Country's Resources:

"The Committee has considered the principles set out in the resolution and has concluded that they should be observed in the development of the country's resources. The Committee has also concluded that the following principles should be observed in the development of the country's resources:

(a) that the land is used in the most efficient manner possible; and

(b) that the land is used in a manner which is consistent with the interests of the community as a whole."

South Beach Redevelopment Project Area Plan calls for the development of public open space adjacent to Pier 46B. This open space would eliminate the Port's access to the maintenance facility, thus requiring the relocation of the maintenance facility and its adjoining tenants, regardless of whether the ballpark is developed at the China Basin location. These relocation costs will be borne by the Redevelopment Agency and not the the ballpark project.³

The Port, though, will incur "opportunity costs" for foregoing development options at Pier 46B. The Port and the City have discussed the extent of these opportunity costs and have tentatively agreed that the Port will receive between \$4.2 million and \$7.1 million as compensation for losing development options at Pier 46B. This compensation would be paid from the income or proceeds generated by developing the Kirkland site.

Total City costs for assembling the land for the ballpark site, then, are estimated to be \$1.3 million and will be funded from income derived from the Kirkland site.

b. Site Preparation

After assembling the land for the ballpark, tenants must be relocated, the site must be cleared of all structures, cleaned of any toxic materials, and any infrastructure which is not currently available at the site must be brought "to the curb." These costs are estimated to total no more than \$4.8 million, but to insure that there are sufficient funds available to complete this work an additional contingency reserve of \$2 million will also be set aside. This would bring the total budgeted for site preparation to \$6.8 million.

The Port has estimated demolition costs for the whole ballpark site at \$1.8 million, assuming that the existing "deck" on the Pier 46B site will not have to be totally demolished. Engineers from the Port and Spectacor have begun a review of the possibility of retaining the existing deck for the ballpark. In the event that part of the deck must be demolished these costs will increase.

The Port has conducted a site history of Pier 46B and estimated the costs for toxic cleanup at significantly less than \$1 million. No site history has been performed on the Caltrans site at this time, but an additional \$1 million has been set aside for potential toxic cleanup on this part of the site.

Because of existing infrastructure in the area, infrastructure costs are expected to be less than \$1 million. For example, since one of the City's largest sewage

³ These conclusions are based on numerous discussions with Redevelopment Agency staff, principally Bob Gamble, Deputy Executive Director , Finance, and Port of San Francisco staff, principally Michael Huerta, Director.

pipes is adjacent to the ballpark site,⁴ the cost of "hooking up" the ballpark to the City's sewer system will be minimal.

Transit infrastructure improvements, specifically the Municipal Railway extension to the ballpark, will be funded through a combination of federal, state, and City funds which have already been identified. In the event that the ballpark proposition does not succeed at the ballot in November, these transit improvements will still proceed, since they are initially designed to serve anticipated development slated for the area surrounding the ballpark.

Finally, a parking facility, consisting of 1500 parking stalls, up to 1000 of which will be made available to the Giants for game day, will also be constructed. The City is currently negotiating with a private party to develop the parking site or to enter a joint venture with the City to develop the facility. If the facility requires any City participation, this participation will not exceed the amount of revenues generated from the parking facility or parking tax proceeds collected from its operations.⁵

Table 1 details those costs incurred for land assembly and site preparation which will be funded through the development of Kirkland.

Table 1:
Costs to be Financed from Development of Kirkland Property

| | |
|---|---------------------------|
| Land Assembly: | |
| Caltrans Reimbursement | \$1.3 m |
| Port of S.F. Opportunity Costs | \$4.2 m to \$7.1 m |
| Total Land Assembly Costs: | \$5.5 m to \$8.4 m |
| Site Preparation: | |
| Demolition | \$1.8 m |
| Toxics | \$2 m |
| Infrastructure | \$1 m |
| Contingency Reserve | \$2 m |
| Total Site Preparation Costs: | \$6.8 m |
| Value of Kirkland Property (1987 est.) | \$18 m |

⁴ According to Richard Evans, Director of Public Works.

⁵ Because of the possibility that parking tax revenues may be allocated to assist in financing this garage, we have not included any parking tax revenues in our estimate of tax benefits associated with the ballpark.

c. Construction Costs.

Spectacor has estimated the cost of constructing the ballpark at \$95.8 million.⁶ During negotiations, Spectacor representatives raised the possibility of increased construction costs of as much as \$20 million. This could increase the total cost of the facility to \$115.8 million. The City and Spectacor agreed to share these cost overruns equally, up to a cap of \$10 million for the City. Given that similar baseball facilities are being constructed in Baltimore for \$105 million, in St. Petersburg for \$107 million and in Chicago for \$120 million, this estimate may be reasonable. Consequently, it is assumed that the full \$10 million will be needed to complete construction of the facility.

d. Investment in and Loan to Ballpark Operations

Under the Memoranda of Understanding the City will provide Spectacor with \$3 million a year for ten years beginning in 1995. \$2 million will be an investment in the ballpark, while the remaining \$1 million will be a loan. The Memorandum with Spectacor includes a repayment mechanism for this loan. Because this repayment will not occur until after the end of the first forty year lease, for purposes of this analysis (which identifies costs and benefits during the first forty years) this loan is treated as a cost which is not repaid.

e. Property or Possessory Interest Taxes Paid to other Entities.

In the Memorandum of Understanding between the City and Spectacor, the City has agreed to waive or refund any possessory interest taxes due by Spectacor to the City for its lease on the new ballpark. The City will have to reimburse other governmental jurisdictions, like the San Francisco Unified School District and the Bay Area Rapid Transit District for any possessory interest taxes which would have been collected from the facility. These taxes have been estimated using a typical methodology used by assessors.⁷ These taxes are then inflated at 2 percent a year, consistent with Proposition 13, over the forty years. In 1995 the possessory interest taxes due to other jurisdictions are projected to be \$200,000. Over 40 years these costs are estimated to be \$14.7 million, assuming construction costs of \$115.8 million.

⁶ Memorandum of Understanding between Spectacor Management Group and the City and County of San Francisco, July 27, 1989.

⁷ These taxes are based on an assessed value equal to 95 percent of the construction costs of the facility, estimated at \$115.8 million. According to Jack Doherty, of the City Attorney's Office, this method could conceivably overstate the taxes which would be due to other entities if a more traditional income approach were used to assess possessory interest taxes.

III. Benefits of a New Baseball Facility.

A new baseball facility will enable the City to generate approximately \$77.6 million in new revenues, over forty years, while maintaining and increasing direct and indirect tax revenues of approximately \$734.7 million.⁸ These revenues fall into three general categories: revenues to the City generated from the 20 percent of "net cash flow;" direct revenues from payroll taxes and sales taxes; and indirect tax revenue generated by the "multiplier" effect of the Giants on the City's economy.

a. Income from the 20 Percent Share of Net Cash Flow

The Memorandum between the City and Spectacor stipulates that in exchange for the \$2 million a year contribution to ballpark operations, the City will receive 20 percent of the net cash flow from the facility for the 40 year term of Spectacor's lease. As Appendix A illustrates, net cash flow has been calculated as the income available after all operating expenses, including debt service, have been paid from all revenues collected by the facility.

Appendix A assumes the following conditions will be operative over the life of the forty year lease:

- the Giants will average 24,000 tickets sold over 79 dates, or 1.94 million per year, with each fan paying an average of \$11 per ticket, \$9.50 for concessions and \$1 on novelties in 1995 dollars;⁹
- luxury suite and luxury seat revenue will generate \$4.5 million in 1995 and will be increased every ten years by a compound inflation factor reflecting 5 percent inflation per year each of the preceding 10 years;

⁸ Two qualifying statements should be made at the outset of this section on benefits. The first concerns retention of benefits. If the Giants were to move from San Francisco, the City would lose the revenues, like payroll taxes, it currently collects from their activities. Building a new facility prevents the City from experiencing this loss in revenues. Preventing this loss, then, is considered as a benefit. The second caveat concerns "substitution effects." While it is true that many individuals will perceive that they are "worse off" if the Giants leave, it is likely that some of the expenditures on Giants games would be replaced by expenditures on some other form of entertainment in San Francisco. It is possible that if the Giants were to leave the City, the loss to City revenues would be less than the full amount of economic benefits the City currently receives due to offsetting increases in other entertainment expenditures. These effects, however, are virtually impossible to estimate.

⁹ According to the Giants, the 1.94 million in tickets sold reflects recent actuals. Assumptions on prices are derived from Edgar, Dunn, & Company Inc. "Examination of the Economics of a Downtown Stadium," July 23, 1986 by inflating prices estimated by Edgar, Dunn by 5 percent per year. The attendance/tickets sold assumption reflects no increase in average attendance over the 40 year lease, although it would be reasonable to expect that attendance will increase as Bay Area population increases over the next 40 years. This also assumes no increase in attendance resulting from the novelty of a new ballpark or a more accessible downtown location.

- there will be 7 additional events per year which will draw an average of 17,900 patrons paying \$11 each for tickets, \$2.40 for concessions and \$1.25 for novelties in 1995;
- \$3.5 million a year will be generated from advertising, scoreboard rentals, and a yearly fee for the rights to name the facility; and
- inflation will average 5 percent per year.

Based on these assumptions the City is projected to receive \$75.2 million in revenues from the ballpark over the forty year life of the lease. See Appendix A for yearly projections of the 20 percent income.

b. Direct Revenues Collected by the City.¹⁰

The City will receive approximately \$2.4 million in payroll taxes from Spectacor over the length of the lease. Because City employees at Candlestick are not subject to payroll taxes, the payroll taxes paid by Spectacor represent a new source of revenue to the City.

The Giants currently pay business taxes to the City based on approximately half of their total payroll. In addition, the concessionaire also pays taxes on its payroll, as well as sales taxes on all sales. If the Giants were to leave, the City would lose these revenues, which are approximately \$315,000 this year. If the Giants stay in San Francisco at the new ballpark, payroll and sales taxes are projected to total \$495.3 million over forty years, including \$2.4 million in payroll taxes paid by Spectacor. This estimate assumes that vendor salaries will grow by 1 percent per year, the salaries of administrative personnel grow by 5 percent per year, and Giants players' salaries grow by 14 percent per year over the forty years.¹¹

c. Indirect Revenues.

In addition to the direct revenues generated by the Giants, there are also indirect revenues which will be created by the existence of the Giants and the ballpark. This "multiplier" effect occurs because the existence of the Giants in the City creates employment directly through the hiring of ballpark employees, contractors and vendors, as just discussed, but also indirectly as those

¹⁰ Special thanks to Peter Miller in the Chief Administrative Officer's Office for his invaluable assistance with these estimates.

¹¹ Roger G. Noll, Professor of Economics at Stanford University, and a noted expert on the economics of sports, believes that 14 percent appreciation in player's salaries under the expected case scenario is reasonable given that this is close to a historic average. His expertise, particularly on possible scenarios regarding appreciation in player's salaries have been incorporated in this paper.

employees and businesses spend their earnings in the San Francisco economy.¹² In addition, the ballpark's downtown location is likely to generate new jobs and additional spending by fans who patronize restaurants, bars, and other San Francisco businesses before and after games.

These indirect revenues are estimated by computing the value added to the San Francisco economy by the Giants players, additional personnel, and all Spectacor personnel employed at the ballpark. The value added by the Giants to the San Francisco economy, excluding wages paid by the Giants outside of the City, is estimated to be \$15.9 million in 1989. In order to estimate the total effect of the Giants on the San Francisco economy, a multiplier of 1.44 was applied to this estimate of value added. This yielded a total estimated impact of Giants baseball on the San Francisco economy of \$22.9 million.¹³ See Appendix B for a discussion of how these estimates were derived.

To ensure that the payroll taxes paid by the Giants, Spectacor, and the concession operator are not double counted in the calculation of indirect revenues, the wages paid by these entities were subtracted from the estimate of total yearly impact on the local economy. This reduces the impact on the economy by over half; for example, the estimate of \$22.9 million in total economic impact in 1989 is decreased to \$11 million when direct wages are subtracted. Over forty years it is projected that this multiplier effect will generate approximately \$252.4 million in indirect revenues. See Appendix C for a yearly estimate of these indirect, as well as the direct revenues which would be generated by the new ballpark.

IV. Comparing Costs and Benefits.

Total costs associated with the new ballpark facility then, using an expected case scenario, will be \$62.8 million, while total benefits associated with the ballpark are projected to be \$822.9 million over forty years. This leaves net benefits of approximately \$760.1 million. These dollar values, though, are nominal or inflated; they need to be converted to their present value to get a true sense of the benefits or return associated with the investment.¹⁴

¹² See Matthew P. Drennan, Modeling Metropolitan Economies for Forecasting and Policy Analysis, New York: New York University Press, 1985; or James Heilbrun, Urban Economics and Public Policy, 3rd Edition, New York: St. Martin's Press, 1987 for an extended discussion of multipliers in an urban and regional economy.

¹³ Value added estimates and the multiplier used in this analysis have been computed using an econometric model of the City's economy. This model was developed by Mr. Agostini using the general approach described by Drennan in Modeling Metropolitan Economies for Forecasting and Policy Analysis.

¹⁴ Present value allows an individual to make informed choices between competing investment opportunities. For example, an investor offers you \$115 in five years if you agree to lend him \$100 today. However, if you were to invest this same \$100 in a savings account, assuming a 5 percent interest rate, that \$100 would be worth \$128 at the end of the five years. Clearly, this is not a

Net Present Values of Ballpark Investment Costs and Benefits

Table 1 displays the costs and benefits described above in both nominal and present values. The present values are calculated using a discount rate of 7.5 percent, which reflects the average long term return on the City's investment portfolio. As Table 1 illustrates, under the expected case scenario the investment in a new ballpark at China Basin will provide net benefits of approximately \$31.5 million.

Table 2:
Cost/Benefit Analysis of China Basin Ballpark
Using "Expected" Case Assumptions.

| Costs | Nominal Value | Present Value |
|--|-----------------------|-----------------------|
| Ballpark Land Assembly | (\$1,300,000) | (\$973,000) |
| Site Preparation | (\$6,800,000) | (\$4,737,000) |
| City Share of Construction Costs | (\$10,000,000) | (\$6,028,000) |
| City Investment in Ballpark Operations | (\$20,000,000) | (\$8,275,000) |
| Property Taxes to Other Governments | (\$14,745,000) | (\$2,348,000) |
| Loan to Ballpark Operations | (\$10,000,000) | (\$4,137,000) |
| Total Costs | (\$62,845,000) | (\$26,498,000) |
| Benefits | | |
| Ballpark Revenues to City | \$75,203,000 | \$6,130,000 |
| Direct City Revenues from New Ballpark | \$495,375,000 | \$34,665,000 |
| Indirect City Revenues from New Ballpark | \$252,393,000 | \$17,198,000 |
| Total Benefits | \$822,971,000 | \$57,993,000 |
| Net Cost/Benefit of New Ballpark | \$760,126,000 | \$31,495,000 |

Alternative Scenarios: Best and Worst Cases.

While the expected case scenario offers evidence that the investment in a new ballpark is worth pursuing, inevitable uncertainty about some of these assumptions suggests that a range of possible outcomes of this investment be

profitable investment to make. You would, though, be willing to lend this individual \$90 to receive \$115 in five years, assuming an interest or discount rate of 5 percent. To calculate a net present value, costs and benefits are "discounted" in a similar fashion to take into account the effect of time and the opportunity costs of money. This type of analysis, allows the investor to view the value of the investment as if the dollars available to him today. See Edward M. Gramlich, Benefit-Cost Analysis of Government Programs Englewood Cliffs, New Jersey: Prentice-Hall, 1981 for an extended discussion of benefit cost analysis and the concepts of present value and discount rates.

calculated. To illustrate the range of possible net benefits which the City could experience through this investment, best and worst case scenarios have also been projected by altering a number of key variables. In the best case the City would realize net benefits of \$141 million; in the worst case the City would realize benefits of \$575,000.

The Best Case Scenario.

Under this scenario, the City would not incur the \$10 million in construction costs and Giants player's salaries would increase 18 percent per year, which would be comparable to the rate of growth in player's salaries over the past two years.¹⁵ As Table 2 illustrates, total nominal costs under this scenario would be \$50.2 million, while total present value costs would be \$20 million. Total nominal benefits would be \$2.783 billion, while present value benefits would be \$161 million. Net benefits would total \$2.732 billion in nominal dollars and \$141 million in present value dollars.

Table 3:
Cost/Benefit Analysis of China Basin Ballpark
Using "Best" Case Assumptions.

| Costs | Nominal Value | Present Value |
|--|------------------------|-----------------------|
| Ballpark Land Assembly | (\$1,300,000) | (\$973,000) |
| Site Preparation | (\$6,800,000) | (\$4,737,000) |
| City Share of Construction Costs | \$0 | \$0 |
| City Investment in Ballpark Operations | (\$20,000,000) | (\$8,275,000) |
| Property Taxes to Other Governments | (\$12,094,000) | (\$1,926,000) |
| Loan to Ballpark Operations | (\$10,000,000) | (\$4,137,000) |
| Total Costs | (\$50,194,000) | (\$20,048,000) |
| Benefits | | |
| Ballpark Revenues to City ("20%") | \$75,203,000 | \$6,130,000 |
| Direct City Revenues from new Ballpark | \$1,782,160,000 | \$102,340,000 |
| Indirect City Revenues from new Ballpark | \$925,324,000 | \$52,581,000 |
| Total Benefits | \$2,782,687,000 | \$161,051,000 |
| Net Cost/Benefit of New Ballpark | \$2,732,493,000 | \$141,003,000 |

¹⁵ This according to Roger Noll.

The Worst Case Scenario.

Under this scenario, the City would incur all of the costs assumed under the expected case scenario. The benefits in this scenario would be lower because:

- Giant's player's salaries are assumed to grow at 10 percent, which is significantly less than their historical growth rate; and
- Tickets sold are assumed to average 1.58 million a year (20,000 per game), 20 percent less than actual tickets sold over the last three years.

Total nominal costs then would remain at \$62.8 million, and \$26.5 million in present value. Total nominal benefits would be \$306.2 million, and \$27 million in present value. Net nominal benefits would be \$243.3 million. Net present value benefits would be \$575,000.

Table 4:
Cost/Benefit Analysis of China Basin Ballpark
Using "Worst" Case Assumptions.

| Costs | Nominal Value | Present Value |
|--|-----------------------|-----------------------|
| Ballpark Land Assembly | (\$1,300,000) | (\$973,000) |
| Site Preparation | (\$6,800,000) | (\$4,737,000) |
| City Share of Construction Costs | (\$10,000,000) | (\$6,028,000) |
| City Investment in Ballpark Operations | (\$20,000,000) | (\$8,275,000) |
| Property Taxes to Other Governments | (\$14,745,000) | (\$2,348,000) |
| Loan to Ballpark Operations | (\$10,000,000) | (\$4,137,000) |
| Total Costs | (\$62,845,000) | (\$26,498,000) |
| Benefits | | |
| Ballpark Revenues to City ("20%") | \$71,004,000 | \$5,619,000 |
| Direct City Revenues from new Ballpark | \$159,253,000 | \$14,723,000 |
| Indirect City Revenues from new Ballpark | \$75,920,000 | \$6,730,000 |
| Total Benefits | \$306,177,000 | \$27,073,000 |
| Net Cost/Benefit of New Ballpark | \$243,332,000 | \$575,000 |

Conclusion.

An investment by the City and County of San Francisco in a new ballpark at China Basin is estimated to generate net benefits of approximately \$31.5 million. Under a worst case scenario, the investment will generate benefits of \$575,000, while under a best case scenario the investment will generate net present value benefits of \$141 million. Even in the worst case, if the intangible benefits often associated with major league sports are considered along with the quantifiable benefits estimated in this paper, it would appear that this investment is worth undertaking.

Bibliography.

Baade, Robert A. "Is There An Economic Rationale for Subsidizing Sports Stadiums?" Heartland Policy Study No.13, February 23, 1987. Chicago: The Heartland Institute.

Baim, Dean. "Comparison of Privately & Publicly Owned Sports Arenas and Stadiums," Heartland Policy Study No.6, August 19, 1985. Chicago: The Heartland Institute.

Chass, Murray. "Average Pay: \$513,730," The Sporting News, April 17, 1989.

Drennan, Matthew P. Modeling Metropolitan Economies for Forecasting and Policy Analysis. New York: New York University Press, 1985.

Edgar, Dunn & Company Inc. "Examination of the Economics of a Downtown Stadium," July 23, 1986.

Frey, J. and A. Johnson, Editors. Government and Sports: Public Policy Issues. Totowa, New Jersey: Rowman and Allanheld, 1985.

Gramlich, Edward M. Benefit-Cost Analysis of Government Programs. Englewood Cliffs, New Jersey: Prentice-Hall, 1981.

Heilbrun, James. Urban Economics and Public Policy, 3rd Edition. New York: St. Martin's Press, 1987.

Johnson, Arthur T. "Economic and Policy Implications of Hosting Sports Franchises," Urban Affairs Quarterly, Vol. 21, No. 3, March 1986, pp 411-433.

New York City, Office of Policy Management, Office of the Comptroller. "The Impact of Professional Sports on the New York City Economy," July 1986.

McNamus, John. "With Local TV Income, Will Baseball's Rich Get Richer?" The Sporting News, April 10, 1989.

Noll, Roger G. "The Economics of Sports Leagues," Studies in Industry Economics, Discussion Paper No. 141, Department of Economics, Stanford University, December 1987.

Noll, Roger G. Editor. Government and the Sports Business. Washington, DC: Brookings Institution, 1974.

Okrent, Daniel. "On the Money," Sports Illustrated, April 10, 1989.

Pearce, David W. The MIT Dictionary of Modern Economics, 3rd Edition. Cambridge, MA: The MIT Press, 1986.

"Professor Hardball," Business Week, April 3, 1989.

Teplitz, Kevin V. Baseball Economics and Public Policy. Lexington, MA: D.C. Heath, 1981.

Appendix A:
Cash Flow Projections for the China Basin Ballpark.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Expenses: | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| Salaries & Benefits | \$1,236,000 | \$1,297,800 | \$1,362,690 | \$1,430,825 | \$1,502,366 | \$1,577,484 | \$1,656,358 | \$1,739,176 | \$1,826,135 | \$1,917,442 |
| Indirect O & M | \$1,959,000 | \$2,007,600 | \$2,107,980 | \$2,213,379 | \$2,324,048 | \$2,440,250 | \$2,562,263 | \$2,690,376 | \$2,824,895 | \$2,966,140 |
| Renewal and Replacement | \$200,000 | \$250,000 | \$300,000 | \$350,000 | \$500,000 | \$500,000 | \$525,000 | \$551,250 | \$578,813 | \$607,753 |
| Tax Exempt Debt | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 |
| Taxable Debt | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 |
| Sub-total Expenses: | \$11,367,000 | \$11,527,400 | \$11,742,670 | \$11,966,204 | \$12,298,414 | \$12,489,734 | \$12,715,621 | \$12,952,802 | \$13,201,842 | \$13,463,334 |
| Income: | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| MLB Rentals (S.F. Giants) | \$1,042,800 | \$1,094,940 | \$1,149,687 | \$1,207,171 | \$1,267,530 | \$1,330,906 | \$1,397,452 | \$1,467,324 | \$1,540,691 | \$1,617,725 |
| Suite and VIP Rentals | \$4,484,000 | \$4,484,000 | \$4,484,000 | \$4,484,000 | \$4,484,000 | \$4,484,000 | \$4,484,000 | \$4,484,000 | \$4,484,000 | \$4,484,000 |
| Other Events | \$165,396 | \$173,666 | \$182,349 | \$191,467 | \$201,040 | \$211,092 | \$221,646 | \$232,729 | \$244,365 | \$256,583 |
| Concession Revenues | \$765,379 | \$803,648 | \$843,831 | \$886,022 | \$930,323 | \$976,840 | \$1,025,682 | \$1,076,966 | \$1,130,814 | \$1,187,355 |
| Other Services | \$29,000 | \$30,450 | \$31,973 | \$33,571 | \$35,250 | \$37,012 | \$38,863 | \$40,806 | \$42,846 | \$44,989 |
| Novelty Revenues | \$349,959 | \$367,457 | \$385,830 | \$405,121 | \$425,377 | \$446,646 | \$468,978 | \$492,427 | \$517,048 | \$542,901 |
| Scoreboard Revenue | \$2,000,000 | \$2,100,000 | \$2,205,000 | \$2,315,250 | \$2,431,013 | \$2,552,563 | \$2,680,191 | \$2,814,201 | \$2,954,911 | \$3,102,656 |
| Electronic Marquee | \$500,000 | \$525,000 | \$551,250 | \$578,813 | \$607,753 | \$638,141 | \$670,048 | \$703,550 | \$738,728 | \$775,664 |
| Naming Allowance | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 |
| Interest | \$88,000 | \$92,400 | \$97,020 | \$101,871 | \$106,965 | \$112,313 | \$117,928 | \$123,825 | \$130,016 | \$136,517 |
| Miscellaneous | \$25,000 | \$26,250 | \$27,563 | \$28,941 | \$30,388 | \$31,907 | \$33,502 | \$35,178 | \$36,936 | \$38,783 |
| Sub-total Income: | \$10,449,534 | \$10,697,811 | \$10,958,501 | \$11,232,226 | \$11,519,638 | \$11,821,420 | \$12,138,291 | \$12,471,005 | \$12,820,355 | \$13,187,173 |
| Ending Balance: | (\$917,466) | (\$829,589) | (\$784,169) | (\$733,977) | (\$778,776) | (\$668,315) | (\$577,330) | (\$481,797) | (\$381,487) | (\$276,161) |
| City Contribution | \$2,000,000 | \$2,000,000 | \$2,000,000 | \$2,000,000 | \$2,000,000 | \$2,000,000 | \$2,000,000 | \$2,000,000 | \$2,000,000 | \$2,000,000 |
| Net Cash Flow | \$1,082,534 | \$1,170,411 | \$1,215,831 | \$1,266,023 | \$1,221,224 | \$1,331,685 | \$1,422,670 | \$1,518,203 | \$1,618,513 | \$1,723,839 |
| 80% to Spectacor | \$866,027 | \$936,329 | \$972,665 | \$1,012,818 | \$976,979 | \$1,065,348 | \$1,138,136 | \$1,214,562 | \$1,294,811 | \$1,379,071 |
| 20% to City | \$216,507 | \$234,082 | \$243,166 | \$253,205 | \$244,245 | \$266,337 | \$284,534 | \$303,641 | \$323,703 | \$344,768 |

| Expenses: | 11 2005 | 12 2006 | 13 2007 | 14 2008 | 15 2009 | 16 2010 | 17 2011 | 18 2012 | 19 2013 | 20 2014 |
|----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Salaries & Benefits | \$2,013,314 | \$2,113,979 | \$2,219,678 | \$2,330,662 | \$2,447,195 | \$2,569,555 | \$2,698,033 | \$2,832,935 | \$2,974,581 | \$3,123,310 |
| Indirect O & M | \$3,114,447 | \$3,270,169 | \$3,433,677 | \$3,605,361 | \$3,785,629 | \$3,974,911 | \$4,173,656 | \$4,382,339 | \$4,601,456 | \$4,831,529 |
| Renewal and Replacement | \$638,141 | \$670,048 | \$703,550 | \$738,728 | \$775,664 | \$814,447 | \$855,170 | \$897,928 | \$942,825 | \$989,966 |
| Tax Exempt Debt | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 |
| Taxable Debt | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 |
| Sub-total Expenses: | \$13,737,901 | \$14,026,196 | \$14,328,906 | \$14,646,751 | \$14,980,489 | \$15,330,913 | \$15,698,859 | \$16,085,202 | \$16,490,862 | \$16,916,806 |
| Income: | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| MLB Rentals (S.F. Giants) | \$1,698,611 | \$1,783,542 | \$1,872,719 | \$1,966,355 | \$2,064,673 | \$2,167,906 | \$2,276,302 | \$2,390,117 | \$2,509,623 | \$2,635,104 |
| Suite and VIP Rentals | \$6,866,287 | \$6,866,287 | \$6,866,287 | \$6,866,287 | \$6,866,287 | \$6,866,287 | \$6,866,287 | \$6,866,287 | \$6,866,287 | \$6,866,287 |
| Other Events | \$269,413 | \$282,883 | \$297,027 | \$311,879 | \$327,473 | \$343,846 | \$361,039 | \$379,091 | \$398,045 | \$417,947 |
| Concession Revenues | \$1,246,722 | \$1,309,058 | \$1,374,511 | \$1,443,237 | \$1,515,399 | \$1,591,169 | \$1,670,727 | \$1,754,264 | \$1,841,977 | \$1,934,076 |
| Other Services | \$47,238 | \$49,600 | \$52,080 | \$54,684 | \$57,418 | \$60,289 | \$63,303 | \$66,469 | \$69,792 | \$73,282 |
| Novelty Revenues | \$570,046 | \$598,548 | \$628,476 | \$659,899 | \$692,894 | \$727,539 | \$763,916 | \$802,112 | \$842,217 | \$884,328 |
| Scoreboard Revenue | \$3,257,789 | \$3,420,679 | \$3,591,713 | \$3,771,298 | \$3,959,863 | \$4,157,856 | \$4,365,749 | \$4,584,037 | \$4,813,238 | \$5,053,900 |
| Electronic Marquee | \$814,447 | \$855,170 | \$897,928 | \$942,825 | \$989,966 | \$1,039,464 | \$1,091,437 | \$1,146,009 | \$1,203,310 | \$1,263,475 |
| Naming Allowance | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 |
| Interest | \$143,343 | \$150,510 | \$158,035 | \$165,937 | \$174,234 | \$182,946 | \$192,093 | \$201,698 | \$211,782 | \$222,372 |
| Miscellaneous | \$40,722 | \$42,758 | \$44,896 | \$47,141 | \$49,498 | \$51,973 | \$54,572 | \$57,300 | \$60,165 | \$63,174 |
| Sub-total Income: | \$15,954,619 | \$16,359,035 | \$16,783,673 | \$17,229,542 | \$17,697,705 | \$18,189,276 | \$18,705,425 | \$19,247,382 | \$19,816,437 | \$20,413,944 |
| Ending Balance: | \$2,216,718 | \$2,332,839 | \$2,454,767 | \$2,582,791 | \$2,717,216 | \$2,858,363 | \$3,006,566 | \$3,162,180 | \$3,325,575 | \$3,497,139 |
| City Contribution | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Net Cash Flow | \$2,216,718 | \$2,332,839 | \$2,454,767 | \$2,582,791 | \$2,717,216 | \$2,858,363 | \$3,006,566 | \$3,162,180 | \$3,325,575 | \$3,497,139 |
| 80% to Spectacor | \$1,773,374 | \$1,866,271 | \$1,963,814 | \$2,066,233 | \$2,173,773 | \$2,286,690 | \$2,405,253 | \$2,529,744 | \$2,660,460 | \$2,797,712 |
| 20% to City | \$443,344 | \$466,568 | \$490,953 | \$516,558 | \$543,443 | \$571,673 | \$601,313 | \$632,436 | \$665,115 | \$699,428 |

| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Expenses: | | | | | | | | | | |
| Salaries & Benefits | \$3,279,476 | \$3,443,450 | \$3,615,622 | \$3,796,403 | \$3,986,224 | \$4,185,535 | \$4,394,811 | \$4,614,552 | \$4,845,280 | \$5,087,544 |
| Indirect O & M | \$5,073,105 | \$5,326,760 | \$5,593,098 | \$5,872,753 | \$6,166,391 | \$6,474,711 | \$6,798,446 | \$7,138,368 | \$7,495,287 | \$7,870,051 |
| Renewal and Replacement | \$1,039,464 | \$1,091,437 | \$1,146,009 | \$1,203,310 | \$1,263,475 | \$1,326,649 | \$1,392,981 | \$1,462,630 | \$1,535,762 | \$1,612,550 |
| Tax Exempt Debt | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 | \$4,255,000 |
| Taxable Debt | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 | \$3,717,000 |
| Sub-total Expenses: | \$17,364,045 | \$17,833,646 | \$18,326,730 | \$18,844,466 | \$19,388,090 | \$19,958,894 | \$20,558,239 | \$21,187,551 | \$21,848,328 | \$22,542,145 |
| Income: | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| MLB Rentals (S.F. Giants) | \$2,766,859 | \$2,905,202 | \$3,050,462 | \$3,202,985 | \$3,363,134 | \$3,531,291 | \$3,707,855 | \$3,893,248 | \$4,087,911 | \$4,292,306 |
| Suite and VIP Rentals | \$10,492,674 | \$10,492,674 | \$10,492,674 | \$10,492,674 | \$10,492,674 | \$10,492,674 | \$10,492,674 | \$10,492,674 | \$10,492,674 | \$10,492,674 |
| Other Events | \$438,845 | \$460,787 | \$483,826 | \$508,018 | \$533,419 | \$560,090 | \$588,094 | \$617,499 | \$648,374 | \$680,792 |
| Concession Revenues | \$2,030,779 | \$2,132,318 | \$2,238,934 | \$2,350,881 | \$2,468,425 | \$2,591,846 | \$2,721,439 | \$2,857,510 | \$3,000,386 | \$3,150,405 |
| Other Services | \$76,946 | \$80,793 | \$84,833 | \$89,074 | \$93,528 | \$98,204 | \$103,115 | \$108,270 | \$113,684 | \$119,368 |
| Novelty Revenues | \$928,545 | \$974,972 | \$1,023,721 | \$1,074,907 | \$1,128,652 | \$1,185,085 | \$1,244,339 | \$1,306,556 | \$1,371,883 | \$1,440,478 |
| Scoreboard Revenue | \$5,306,595 | \$5,571,925 | \$5,850,521 | \$6,143,048 | \$6,450,200 | \$6,772,710 | \$7,111,345 | \$7,466,913 | \$7,840,258 | \$8,232,271 |
| Electronic Marquee | \$1,326,649 | \$1,392,981 | \$1,462,630 | \$1,535,762 | \$1,612,550 | \$1,693,177 | \$1,777,836 | \$1,866,728 | \$1,960,065 | \$2,058,068 |
| Naming Allowance | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 |
| Interest | \$233,490 | \$245,165 | \$257,423 | \$270,294 | \$283,809 | \$297,999 | \$312,899 | \$328,544 | \$344,971 | \$362,220 |
| Miscellaneous | \$66,332 | \$69,649 | \$73,132 | \$76,788 | \$80,627 | \$84,659 | \$88,892 | \$93,336 | \$98,003 | \$102,903 |
| Sub-total Income: | \$24,667,714 | \$25,326,466 | \$26,018,156 | \$26,744,430 | \$27,507,018 | \$28,307,735 | \$29,148,488 | \$30,031,279 | \$30,958,209 | \$31,931,486 |
| Ending Balance: | \$7,303,669 | \$7,492,819 | \$7,691,426 | \$7,899,964 | \$8,118,928 | \$8,348,841 | \$8,590,249 | \$8,843,728 | \$9,109,880 | \$9,389,341 |
| City Contribution | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Net Cash Flow | \$7,303,669 | \$7,492,819 | \$7,691,426 | \$7,899,964 | \$8,118,928 | \$8,348,841 | \$8,590,249 | \$8,843,728 | \$9,109,880 | \$9,389,341 |
| 80% to Spectacor | \$5,842,935 | \$5,994,255 | \$6,153,141 | \$6,319,971 | \$6,495,142 | \$6,679,073 | \$6,872,199 | \$7,074,982 | \$7,287,904 | \$7,511,473 |
| 20% to City | \$1,460,734 | \$1,498,564 | \$1,538,285 | \$1,579,993 | \$1,623,786 | \$1,669,768 | \$1,718,050 | \$1,768,746 | \$1,821,976 | \$1,877,868 |

| | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Expenses: | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
| Salaries & Benefits | \$5,341,921 | \$5,609,017 | \$5,889,468 | \$6,183,941 | \$6,493,138 | \$6,817,795 | \$7,158,685 | \$7,516,619 | \$7,892,450 | \$8,287,072 |
| Indirect O & M | \$8,263,554 | \$8,676,732 | \$9,110,568 | \$9,566,096 | \$10,044,401 | \$10,546,621 | \$11,073,952 | \$11,627,650 | \$12,209,033 | \$12,819,484 |
| Renewal and Replacement | \$1,693,177 | \$1,777,836 | \$1,866,728 | \$1,960,065 | \$2,058,068 | \$2,160,971 | \$2,269,020 | \$2,382,471 | \$2,501,594 | \$2,626,674 |
| Tax Exempt Debt | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Taxable Debt | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Sub-total Expenses | \$15,298,652 | \$16,063,585 | \$16,866,764 | \$17,710,102 | \$18,595,607 | \$19,525,388 | \$20,501,657 | \$21,526,740 | \$22,603,077 | \$23,733,231 |
| Income: | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
| MLB Rentals (S.F. Giants) | \$4,506,922 | \$4,732,268 | \$4,968,881 | \$5,217,325 | \$5,478,191 | \$5,752,101 | \$6,039,706 | \$6,341,691 | \$6,658,776 | \$6,991,715 |
| Suite and VIP Rentals | \$16,399,676 | \$16,399,676 | \$16,399,676 | \$16,399,676 | \$16,399,676 | \$16,399,676 | \$16,399,676 | \$16,399,676 | \$16,399,676 | \$16,399,676 |
| Other Events | \$714,832 | \$750,574 | \$788,102 | \$827,507 | \$868,883 | \$912,327 | \$957,943 | \$1,005,840 | \$1,056,132 | \$1,108,939 |
| Concession Revenues | \$3,307,926 | \$3,473,322 | \$3,646,988 | \$3,829,337 | \$4,020,804 | \$4,221,844 | \$4,432,937 | \$4,654,583 | \$4,887,313 | \$5,131,678 |
| Other Services | \$125,336 | \$131,603 | \$138,183 | \$145,092 | \$152,347 | \$159,964 | \$167,963 | \$176,361 | \$185,179 | \$194,438 |
| Novelty Revenues | \$1,512,502 | \$1,588,127 | \$1,667,533 | \$1,750,910 | \$1,838,455 | \$1,930,378 | \$2,026,897 | \$2,128,242 | \$2,234,654 | \$2,346,386 |
| Scoreboard Revenue | \$8,643,885 | \$9,076,079 | \$9,529,883 | \$10,006,377 | \$10,506,696 | \$11,032,031 | \$11,583,632 | \$12,162,814 | \$12,770,955 | \$13,409,502 |
| Electronic Marquee | \$2,160,971 | \$2,269,020 | \$2,382,471 | \$2,501,594 | \$2,626,674 | \$2,758,008 | \$2,895,908 | \$3,040,703 | \$3,192,739 | \$3,352,376 |
| Naming Allowance | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 |
| Interest | \$380,331 | \$399,347 | \$419,315 | \$440,281 | \$462,295 | \$485,409 | \$509,680 | \$535,164 | \$561,922 | \$590,018 |
| Miscellaneous | \$108,049 | \$113,451 | \$119,124 | \$125,080 | \$131,334 | \$137,900 | \$144,795 | \$152,035 | \$159,637 | \$167,619 |
| Sub-total Income: | \$38,860,428 | \$39,933,466 | \$41,060,155 | \$42,243,179 | \$43,485,355 | \$44,789,639 | \$46,159,137 | \$47,597,110 | \$49,106,981 | \$50,692,347 |
| Ending Balance: | \$23,561,776 | \$23,869,881 | \$24,193,392 | \$24,533,077 | \$24,889,747 | \$25,264,251 | \$25,657,480 | \$26,070,370 | \$26,503,905 | \$26,959,116 |
| City Contribution | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Net Cash Flow | \$23,561,776 | \$23,869,881 | \$24,193,392 | \$24,533,077 | \$24,889,747 | \$25,264,251 | \$25,657,480 | \$26,070,370 | \$26,503,905 | \$26,959,116 |
| 80% to Spectacor | \$18,849,421 | \$19,095,905 | \$19,354,713 | \$19,626,462 | \$19,911,798 | \$20,211,401 | \$20,525,984 | \$20,856,296 | \$21,203,124 | \$21,567,293 |
| 20% to City | \$4,712,355 | \$4,773,976 | \$4,838,678 | \$4,906,615 | \$4,977,949 | \$5,052,850 | \$5,131,496 | \$5,214,074 | \$5,300,781 | \$5,391,823 |

Appendix B:
Description of Multiplier Calculations Used to
Estimate Indirect Revenues.

One of the fundamental concepts in urban and regional economics is economic base theory. In economic base theory, certain industries are said to be "basic" because they export goods and services outside of the local or regional economy, thereby generating income from other parts of the nation. Other industries which do not export outside of the economy are said to be "non-basic" because the goods and services they produce are consumed within the local economy.

Because of their important position in the local or regional economy, expenditures made in basic industries are thought to create additional jobs and income in the local economy. This "multiplier" effect refers to the impact that \$1 expended or created in an export or basic industry has on the local or non-basic industries. Multipliers are expressed as a value greater than 1 since they capture the initial expenditure, or "injection," in the economy, as well as the subsequent effects. A multiplier of 1.75, then, can be interpreted as follows: an initial expenditure of \$1 in an export industry creates an additional 75¢ of value in that particular local or regional economy.

Estimating the indirect revenues generated by an investment in a new ballpark required a two stage process using

- an estimate of the value added by the Giants to the local economy, derived using an estimate of the Giants total payroll in 1989,
- the total wages paid in San Francisco, by industry, from 1972 to 1986,
- and the value added by each of the ten major industry groupings in the economy, calculated using national employment, national income accounts, and local employment from 1972 to 1988.¹⁶

First, an estimate of the relationship between total payroll in the San Francisco services industry and total value added in the services industry was estimated using regression analysis. This approach yielded the following equation for converting wages in the service industry to value added in the service industry:

¹⁶ These are : 1) agriculture, 2) mining, 3) construction, 4) manufacturing, 5) transportation and utilities, 6) wholesale trade, 7) retail trade, 8) finance, insurance and real estate, 9) services, and 10) government

R-squared = .99
F = 3253
D.W. = 1.94

Four basic industries have been identified for San Francisco, using location quotients: transportation and utilities, wholesale trade, finance, insurance, and real estate, and services. To estimate the multiplier effect of each of these industries, regression analysis was again employed. This analysis produced the following equation, which is accompanied by support statistics:

$$(1.938 \text{ *Wholesale}) + (1.221 \text{ *Finance, etc.}) + (1.438 \text{ *Services})$$

$$(t=5.77) \quad (t=31.51) \quad (t=40.52)$$

R-squared = .99
F = 31170
D.W. = 2.12

23

Appendix C:
Yearly Estimates of Direct and Indirect Revenues Generated
by a China Basin Ballpark.

| Year | 1 1995 | 2 1996 | 3 1997 | 4 1998 | 5 1999 | 6 2000 | 7 2001 | 8 2002 | 9 2003 | 10 2004 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| Direct Revenues | \$341,600 | \$389,424 | \$443,944 | \$506,096 | \$576,949 | \$657,722 | \$749,803 | \$854,775 | \$974,444 | \$1,110,866 |
| Indirect Revenues | \$335,076 | \$308,051 | \$341,520 | \$379,238 | \$421,780 | \$469,798 | \$524,037 | \$585,341 | \$654,674 | \$733,133 |
| Spectacor Payroll Taxes | \$19,776 | \$20,765 | \$21,803 | \$22,893 | \$24,038 | \$25,240 | \$26,502 | \$27,827 | \$29,218 | \$30,679 |

| Year | 11 2005 | 12 2006 | 13 2007 | 14 2008 | 15 2009 | 16 2010 | 17 2011 | 18 2012 | 19 2013 | 20 2014 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Direct Revenues | \$1,266,387 | \$1,443,681 | \$1,645,797 | \$1,876,208 | \$2,138,878 | \$2,438,320 | \$2,779,685 | \$3,168,841 | \$3,612,479 | \$4,118,226 |
| Indirect Revenues | \$821,968 | \$922,600 | \$1,036,651 | \$1,165,965 | \$1,312,645 | \$1,479,085 | \$1,668,015 | \$1,882,542 | \$2,126,207 | \$2,403,047 |
| Spectacor Payroll Taxes | \$32,213 | \$33,824 | \$35,515 | \$37,291 | \$39,155 | \$41,113 | \$43,169 | \$45,327 | \$47,593 | \$49,973 |

| Year | 21 2015 | 22 2016 | 23 2017 | 24 2018 | 25 2019 | 26 2020 | 27 2021 | 28 2022 | 29 2023 | 30 2024 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| Direct Revenues | \$4,694,778 | \$5,352,047 | \$6,101,333 | \$6,955,520 | \$7,929,293 | \$9,039,394 | \$10,304,909 | \$11,747,596 | \$13,392,260 | \$15,267,176 |
| Indirect Revenues | \$2,717,659 | \$3,075,282 | \$3,481,888 | \$3,944,279 | \$4,470,209 | \$5,068,515 | \$5,749,267 | \$6,523,942 | \$7,405,622 | \$8,409,214 |
| Spectacor Payroll Taxes | \$52,472 | \$55,095 | \$57,850 | \$60,742 | \$63,780 | \$66,969 | \$70,317 | \$73,833 | \$77,524 | \$81,401 |

| Year | 31 2025 | 32 2026 | 33 2027 | 34 2028 | 35 2029 | 36 2030 | 37 2031 | 38 2032 | 39 2033 | 40 2034 |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Direct Revenues | \$17,404,580 | \$19,841,222 | \$22,618,993 | \$25,785,652 | \$29,395,643 | \$33,511,033 | \$38,202,578 | \$43,550,939 | \$49,648,070 | \$56,598,800 |
| Indirect Revenues | \$9,551,711 | \$10,852,480 | \$12,333,597 | \$14,020,222 | \$15,941,035 | \$18,128,726 | \$20,620,557 | \$23,459,000 | \$26,692,471 | \$30,376,157 |
| Spectacor Payroll Taxes | \$85,471 | \$89,744 | \$94,231 | \$98,943 | \$103,890 | \$109,085 | \$114,539 | \$120,266 | \$126,279 | \$132,593 |

U.C. BERKELEY LIBRARIES

